Monitoring Data Record

| Project Title: <u>Henderson Western Loop (U-252</u> | COE A | Action ID: | 199708127 | | | | | |
|--|-----------------------|---------------|----------------|--|--|--|--|--|
| Stream Name: UT to Red Bud Creek | DWQ | Number: | 031494 | | | | | |
| City, County and other Location Information: He | | | | | | | | |
| (Sta. 40+80 to 47+20) | , | <u>*</u> | | | | | | |
| Date Construction Completed: | | | | | | | | |
| Water was turned into stream on 6/13/05. Planting | g was completed | on 3/10/06. | | | | | | |
| Monitoring Year: (2) of 5 | • | | | | | | | |
| | git HUC unit | 03010102 | | | | | | |
| USGS Quad Name and Coordinates: | | | | | | | | |
| Rosgen Classification: Proposed E | 4 Stream Type | | | | | | | |
| Length of Project: 2,592' Urban or Rural: | | rshed Size: | | | | | | |
| Monitoring DATA collected by: M. Green and J. | | | | | | | | |
| Applicant Information: | <u>.</u> | · | | | | | | |
| Name: NCDOT Roadside Environmental | Unit | | | | | | | |
| Address: 1425 Rock Quarry Road Raleigh, NC 27610 | | | | | | | | |
| Telephone Number: (919) 861-3772 | _ | ss: mlgreen@d | ot.state.nc.us | | | | | |
| Consultant Information: | | | | | | | | |
| Name: | | | | | | | | |
| Address: | | | | | | | | |
| Telephone Number: | Email addres | | | | | | | |
| Project Status: Complete | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Monitoring Level required by COE and DWQ | (404 permit/ 401 (| Cert.): Level | 1 2 3 | | | | | |
| Monitoring Level 1 requires completion of Sect. | | | | | | | | |
| Permit States: NCDOT shall perform the follow | ing components of | f Level I mo | nitoring twice | | | | | |
| each year for the 5 year monitoring period (sumn | ner and winter): R | eference pho | otos, plant | | | | | |
| survival, and visual inspection of channel stabilit | | | | | | | | |
| the first 5 years, NCDOT shall continue monitoring until the second bankfull event is | | | | | | | | |
| documented. The bankfull events must occur du | | | | | | | | |
| the required bankfull events do not occur during the 5 year monitoring period, the USACE, in | | | | | | | | |
| consultation with resource agencies, may determine that further monitoring is not required. | | | | | | | | |
| | 10 1100 10111101 1110 | | | | | | | |
| Section 1. PHOTO REFERENCE SITES | | | | | | | | |
| (Monitoring at all levels must complete this section) | | | | | | | | |
| | | | | | | | | |
| Total number of reference photo locations at | his site: | | | | | | | |
| 13 photo point locations, 2 photos at each | | | | | | | | |
| Dates reference photos have been taken at this site: 6/21/06, 1/10/07, 6/6/07 | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Individual from whom additional photos can l | e obtained (name | e, address, p | ohone): | | | | | |
| | | | | | | | | |
| Other Information relative to site photo reference | : | | | | | | | |
| If required to complete Level 3 monitoring o | alventon hans sul | myriae e | lata agatian 2 | | | | | |
| | | runca aamn | INIA CACTION / | | | | | |

Section 2. <u>PLANT SURVIVAL</u> Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

The stream relocation from Sta. 46+40 to Sta. 47+20 has minimal planted hardwood vegetation surviving due to competition with thick herbaceous vegetation.

Estimated causes, and proposed/required remedial action:

The stream relocation from Sta. 46+40 to Sta. 47+20 will be supplementally planted in the Winter 2008.

ADDITIONAL COMMENTS:

Stream is highly vegetated with herbaceous vegetation, which includes, lespedeza, cattails, Juncus sp., sedge, fennel, woolgrass, and various grasses. Hardwood vegetation included silky dogwood, black willow, sycamore, green ash, tulip poplar, willow oak, and sweetgum. Planting was completed on the stream in March 2006.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. <u>Physical measurements of channel stability/morphology will not be required.</u> Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

The stream is highly stabilized for the Year 2 summer evaluation. The minor bank erosion noted last year located at approx. Sta. 40+90 is stabilized with heavy herbaceous vegetation and warrants no remedial action at this time. All cross vanes are functioning properly except for a cross vane located at approx. Sta. 41+20. This cross vane has a headcut and water piping under the structure. NCDOT will continue to monitor this stream relocation.

| 6/6/07 | Sta. 41+20 | Station | Station | Station | Station |
|---------------|---------------|---------|---------|---------|---------|
| | | Number | Number | Number | Number |
| Structure | Crossvane | | | | |
| Type | | | | | |
| Is water | Water is | | | | |
| piping | piping under | | | | |
| through or | the crossvane | | | | |
| around | | | | | |
| structure? | | | | | |
| Head cut or | Headcut | | | | |
| down cut | | | | | |
| present? | | | | | |
| Bank or scour | | | | | |
| erosion | | | | | |
| present? | | | | | |
| Other | | | | | |
| problems | | | | | |
| noted? | | | | | |

NOTE: Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream) Year 2 Summer – June 2007



Photo Point #3 (Downstream)



Photo Point #4 (Upstream)



Photo Point #4 (Downstream)



Photo Point #5 (Upstream)



Photo Point #5 (Downstream)



Photo Point #6 (Upstream)



Photo Point #6 (Downstream)



Photo Point #7 (Upstream)



Photo Point #7 (Downstream)



Photo Point #8 (Upstream)



Photo Point #8 (Downstream)



Photo Point #9 (Upstream)



Photo Point #9 (Downstream)



Photo Point #10 (Upstream)



Photo Point #10 (Downstream)



Photo Point #11 (Upstream)



Photo Point #11 (Downstream)



Photo Point #12 (Upstream)



Photo Point #12 (Downstream)



Photo Point #13 (Upstream)



Photo Point #13 (Downstream)



Cross Vane Located @ Sta. 41+20

Year 2 Summer – June 2007